In the Claims

1. A method of monitoring operation of an automated tool comprising

positioning in close proximity to said automated tool at least one wireless sensor,

energizing said wireless sensor by inducing current in an electrical conductor through relative movement between said electrical conductor and a magnetic field,

monitoring at least one condition of said automated tool by said sensor,

emitting signals containing sensor information in space to a microprocessor, and

processing said sensor information in said microprocessor.

2. The method of claim 1 including

in the event that the microprocessor determines that said automated tool has departed from desired conditions of operation issuing a responsive signal.

3. The method of claim 1 including

effecting said relative movement by movement of a source of said magnetic field with respect to said electrical conductor.

4. The method of claim 3 including

employing a permanent magnet as said source of said magnetic field.

5. The method of claim 4 including

employing as said electrical conductor an electrically conductive loop, and

extending said permanent magnet through said electrically conductive loop.

6. The method of claim 5 including

a spring operatively associated with said permanent magnetic to effect movement of said permanent magnet responsive to movement of said automated tool.

7. The method of claim 1 including

providing a flexible material on said sensor, and

effecting said relative movement between said electrical conductor and said magnetic field by distortion of said flexible sensor.

8. The method of claim 1 including

employing said method to monitor a said automatic tool performing an operation on a workpiece.

9. The method of claim 1 including

said at least one sensor being a microelectromechanical system device.

10. The method of claim 1 including

employing a plurality of said sensors in said method.

11. The method of claim 9 including

measuring by said microelectromechanical system device at least one motion-related characteristic of said automated tool.

12. The method of claim 1 including

employing as said automated tool a progressive stamping press operating on a metal sheet workpiece.

13. The method of claim 1 including

transmitting said sensor signals to said microprocessor employing an RF carrier.

14. The method of claim 13 including

transmitting said sensor information as digital information.

15. The method of claim 14 including

employing said method to monitor misfeed.

16. Apparatus for monitoring operation of an automated tool comprising

an automated tool,

at least one wireless sensor for monitoring a condition of said automated tool and emitting signals through space,

said sensor being a wireless sensor having an electrical conductor mounted for relative movement with respect to a magnetic field such that relative movement therebetween will induce electrical current in said electrical conductor for energizing said sensor, and

a microprocessor for receiving said sensor signals and determining the departure from a desired characteristic exists and, if so, emitting a responsive signal.

17. The apparatus of claim 16 including

said source of magnetic field being a permanent magnet.

18. The apparatus of claim 17 including

said electrical conductor being an electrically conductive loop operatively associated with said sensor for energizing the same, and

said elongated permanent magnet extending through the opening in said electrically conductive loop.

19. The apparatusof claim 18 including

a spring operatively associated with said permanent magnet to establish relative movement of the same with respect to said electrical conductor responsive to movement of said automated tool.

20. The apparatus of claim 17 including

said sensor being composed in part of a flexible material which is structured to create relative movement between said electrical conductor and said permanent magnet responsive to movement of said automated tool.

21. The apparatus of claim 16 including

said at least one said wireless sensor being a microelectromechanical system device.

22. The apparatus of claim 21 including

said apparatus having a plurality of said sensors.

23. The apparatus of claim 16 including

said automated tool being a progressive stamping press for performing operations on a metal sheet workpiece.

24. The apparatus of claim 16 including

said microelectrical system device sensors being structured to monitor acceleration related conditions.

25. The apparatus of claim 16 including

said microprocessor being structured to issue a responsive signal in the event it determines that said automated tool has departed from desired conditions of operation.

26. The apparatus of claim 25 including

said microprocessor responsive signals being selected from the group consisting of an automated tool shutdown signal, an alarm signal and the data delivery signal.